

REMARKS

Claims 1-3 are pending in the Outstanding Office Action, and Claims 1-3 stand rejected. Applicants have previously submitted a preliminary amendment adding new claims 4-8, which has apparently crossed in the mail with the Outstanding Office Action. Accordingly, Applicants respectfully request consideration of these claims subsequent to the Outstanding Office Action. The Examiner is respectfully requested to reconsider and withdraw the present rejections in view of the amendments and remarks contained herein.

SPECIFICATION

Applicants have submitted a change to the specification to correct a minor typographical error. No new matter has been added and Applicants respectfully request entry of this amendment to the specification.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 1-3 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Nourbakhsh et al in view of Howard '904. The Outstanding Office Action states that it would have been obvious to modify the Nourbakhsh et al torch (Figure 10) to mount the solenoid unit in the torch handle, as set forth in Howard, so that a proper gas pressure can be maintained in the torch head.

In Figure 10, Nourbakhsh et al discloses a switch SW3 remote from the torch handle, which functions to energize the torch when both interlock switches SW1 and SW2 are closed, i.e. both push buttons 78, 83 are manually pushed inward. Applicants fail to see the use or reference to a solenoid whatsoever in Nourbakhsh et al to **control gas**

flow. The switch SW3 that is remote from the torch handle electrically activates **both** gas flow and current for operation of the torch and there is no discussion whatsoever of a gas solenoid, a gas control device, or of building up gas pressure local to the torch head in Nourbakhsh et al. Furthermore, with the placement of a device remote from the torch handle, Nourbakhsh et al teaches away from the claimed invention. Moreover, without any discussion whatsoever of gas control, Applicants fail to see the relevance of the Nourbakhsh et al reference.

Howard discloses a solenoid coil 55 that operates a separate valve 54, which functions to provide a continuous flow of hydrogen when the welding arc is only momentarily interrupted or extinguished. (Column 5, Lines 68-71). Furthermore, the solenoid coil 55 is only energized when an arc is formed (Column 6, Lines 60-61). Thus, the gas flow is only activated upon formation of the arc, which teaches away from the claimed invention having a separate gas control function. Howard is not capable of controlling gas flow only, since the electrical leads for arc formation are also connected to the solenoid coil 55. Since the solenoid coil 55 functions to provide both electrical current **and** gas flow, Howard cannot render obvious the control of gas separate from the control of current. Moreover, the function of gas flow in the art of welding is to provide an inert atmosphere near the weld and has no effect whatsoever on arc ignition. In contrast, the flow of gas in the art of plasma cutting directly effects arc ignition, e.g., using a separate gas control device proximate the torch handle to reduce restart times. Therefore, Applicants submit that the combination of a welding reference with a plasma cutting reference is inappropriate in the present application. Accordingly, for at least these reasons, Applicants respectfully request that the claim rejections be withdrawn.

Double Patenting

The Outstanding Office Action further states that Claims 1 and 2 are rejected under the judicially created doctrine of double patenting over claims 41-43 of U.S. Patent No. 6,689,983. However, the present application is a continuation of U.S. Patent No. 6,689,983, (application serial number 10/083,101, as stated in paragraph [0001] of the present application), and thus Applicants submit that a terminal disclaimer is not necessary since the present application will have the same term as U.S. Patent No. 6,689,983. Accordingly, Applicants respectfully request that these claim rejections be withdrawn

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (314) 726-7524.

Respectfully submitted,

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